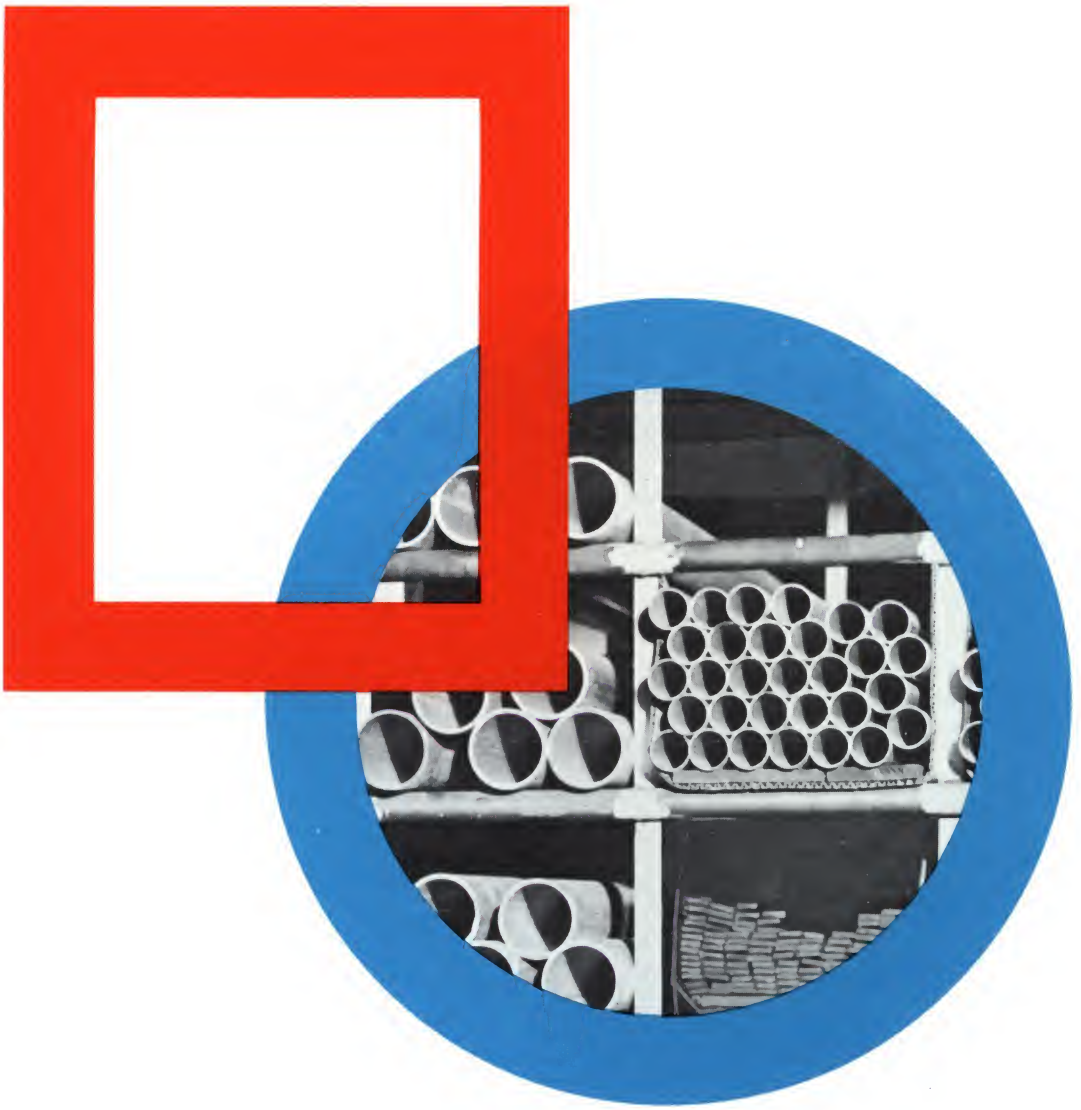
REYNOLDS WAREHOUSED ARCHITECTURAL ALUMINUM



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ALUMINUM ALLOY SELECTION GUIDE

I. The Effect of Aluminum Alloy Elements Upon Formability

a The higher the percentage, or percentages, of alloying elements present in a constituted alloy, the more adversely affected it is from the standpoint of its workability or formability.

b Two or more alloying elements present in an alloy in amounts approaching or exceeding 1% adversely affect its formability more than one element present in a greater amount.

Example: Alloy 3004, having a nominal content of 1.25% and 1.1% respectively of both manganese and magnesium, has somewhat less workability than alloy 5052 which has a nominal content of 2.5% magnesium alone.

II. Types of Aluminum Alloys

a *Common Alloys*—These are not reactive to heat-treatment for the improvement of their mechanical properties. Such alloys obtain their degree of temper primarily through strain hardening, however, some type of thermal treatment may be involved in their production.

b *Heat-Treated Alloys*—These do react to heat-treatment for the improvement of their mechanical properties. Such alloys obtain their degree of temper primarily by thermal treatment, however, some type of strain hardening may be involved in their production.

c Some common alloys have a higher yield strength in their harder tempers than some of the heat-treated alloys and may be less expensive, however, certain of these alloys are available in sheet or plate which are not available in bar extrusions, tubing, etc. and vice-versa.

III. Mechanical Properties of Aluminum Alloys and Their Effect Upon Formability

a Hardness values of wrought aluminum are the best criteria of workability and formability except where stretching alone is involved. In stretching, elongation is the most important property to consider.

b In most cases, an aluminum alloy having a relatively high ultimate strength in relation to its yield strength provides for optimum workability; however, in a case where two different alloys may be equal in this respect, the one having the lesser hardness will be the more workable such as 6061-T6 in the following example:

ALUMINUM ALLOY EXTR.	GUARANTEED ULT. STRENGTH	GUARANTEED YD. STRENGTH	GUARANTEED ELONGATION	TYPICAL BRINELL HARDNESS
2014-T6	60,000 p.s.i.	53,000 p.s.i.	7%	135
6061-T6	42,000 p.s.i.	35,000 p.s.i.	10%	95

c It is impossible to rate formability on the basis of any particular mechanical properties or individual characteristic of an aluminum alloy. While, as stated above, hardness is a good criteria, other factors such as elongation, yield and ultimate strengths, surface texture and oxidation, grain size, etc. all contribute to determine the actual workability characteristics of the metal.

d Some very desirable and popular heat-treated aluminum alloys for structural and architectural applications are available in various tempers, some of which are unstable. That is, they may age harden fairly rapidly under certain atmospheric conditions and environments. They are:

Unstable Tempers—2014-T3 or -T4 (Bare or Alclad)
6061-T4 (Bare or Alclad)
6062-T4
6063-T4

It is advisable that architects be cognizant of the above possibility and establish their designs on the basis of fabricating such alloys in their stable tempers:

Stable Tempers—2014-T6 (Bare or Alclad)
6061-T6 (Bare or Alclad)
6062-T6
6063-T6

e Other very desirable and popular types of heat-treatable aluminum alloys used for architectural applications may vary to a slightly more than normal degree in their mechanical properties from one production lot to another; and as a consequence, workability and formability may be affected to the degree that inconsistent results are encountered when using non-adjustable tooling and methods. They are 6063-T5 and 6063-T6.

Here again, it is advisable that architects and fabricators be cognizant of this and establish their designs and production methods based upon the mechanical properties of these alloys being at their higher levels rather than at their lower, guaranteed values.

IV. Recommended Aluminum Alloys for Architectural Applications

a *Sheet & Plate* (To be exposed with natural or plain anodized finish.)

LOW STRENGTH	INTERMEDIATE STRENGTH	HIGH STRENGTH
5005	5050	5154
(See Notes	5357	6061-T6
1 & 2 Below)	5052	2014-T6
		2024-T3 or -T4

b *Extrusions, Shapes, Bar & Tubing* (To be exposed with natural or plain anodized finish.)

LOW STRENGTH	INTERMEDIATE STRENGTH	HIGH STRENGTH
6063-T42	6063-T5	6061-T6
(See Note	6063-T6	6062-T6
No. 2 Below)		2014-T6
		2024-T4

Notes:

1 Certain clad alloys developed for special purposes are also recommended when the end use warrants their selection.

2 The alloys underlined are not recommended for use in areas exposed to salt water atmosphere or for use in combination with other alloys.

V. Forming of Aluminum Alloys

a All wrought aluminum alloys can be readily formed. Each, of course, has its own limitation in respect to any specific forming operation. Architectural applications designed to be made from aluminum generally require one or more of the following fabricating operations, all of which are conveniently accomplished on aluminum with the proper tooling and equipment:

Bending	Stamping	Slitting	Stretching
Drawing	Roll Forming	Flanging	Spinning
Ironing	Curving	Edging	Beading
Extruding	Blanking	Necking	Forging
Coining	Piercing	Bulging	Pressing
Embossing	Shearing	Curling	Shrinking
			Swaging

b Aluminum can be pre-coated with an organic finish suitable for satisfactorily withstanding moderate forming operations such as bending, roll forming, shallow embossing, curling and beading.

c Pre-anodized aluminum, except when subjected to an exceptionally generous type of operation, cannot be successfully formed without affecting or rupturing the anodic film. Anodic films adversely affect tooling surfaces; and it is recommended that, in most cases, aluminum parts be fabricated prior to anodizing.

TYPICAL MECHANICAL PROPERTIES OF WROUGHT ALUMINUM ALLOYS (COMMON)*

	ALLOY AND TEMPER	TENSION				COMPRESSION	SHEAR	BEARING			
		STRENGTH PSI		ELONGATION % IN 2 IN.				EDGE DISTANCE= 2X RIVET DIA.			
		ULTIMATE	YIELD SET 0.2%	1/16" THICK.	1/2" DIA.	YIELD STRENGTH PSI	ULTIMATE STRENGTH PSI	ULTIMATE STRENGTH PSI	YIELD STRENGTH PSI	ENDURANCE LIMIT PSI	BRINELL HARDNESS
NON-HEAT-TREATABLE ALLOYS	3303-O	16,000	6,000	30	40	6,000	11,000	28,800	10,800	7,000	28
	-H14	22,000	21,000	8	16	21,000	14,000	39,600	37,800	9,000	40
	3004-O	26,000	10,000	20	25	10,000	16,000	46,800	18,000	14,000	45
	-H34	35,000	29,000	9	12	29,000	18,000	63,000	52,200	15,000	63
	5005-O	18,000	6,000	30	—	6,000	11,000	32,400	10,300	—	28
	-H14	23,000	22,000	6	—	22,000	14,000	41,400	39,600	—	—
	5052-O	28,000	13,000	25	30	13,000	18,000	50,400	23,400	16,000	47
	-H34	38,000	31,000	10	14	31,000	21,000	68,400	55,800	18,000	68
	5154-O	35,000	18,000	27	—	18,000	18,000	63,000	32,400	17,000	58
	-H34	42,000	33,000	13	—	33,000	24,000	75,600	59,400	19,000	73
HEAT-TREATABLE ALLOYS	2014-T6	70,000	60,000	—	13	60,000	42,000	126,000	108,000	18,000	135
	2024-T4	68,000	47,000	20	19	47,000	41,000	122,400	84,600	20,000	120
	6061-T6	45,000	40,000	12	17	40,000	30,000	81,000	72,000	14,000	95
	6062-T6	45,000	40,000	—	17	40,000	30,000	81,000	72,000	14,000	95
	6063-T5	27,000	21,000	12	—	21,000	17,000	48,600	37,800	10,000	60
	6063-T6	35,000	31,000	12	—	31,000	22,000	63,000	55,800	10,000	73

*Mechanical properties vary between plate, extrusions and tubing. For specific data contact Reynolds Metals Co., Richmond 18, Virginia.

ARCHITECTURAL FINISHES FOR ALUMINUM

The pleasing natural appearance of aluminum can be finished in a large variety of ways which achieve special effects, add color and beauty, increase aluminum's naturally fine weather resistance, and impart greater corrosion protection.

Sulphuric Acid Anodizing—An electrochemical process that augments the natural oxide coating, greatly increasing aluminum's natural weather resistance and also increasing aluminum's resistance to abrasion. This transparent oxide film can be dyed, adding metallic color to the aluminum surface. To assure a durable finish the coating thickness and film weight should be specified according to the application from the table below:

APPLICATION	SHEET AND EXTRUSIONS MIN. FILM THICKNESS	MIN. COATING WEIGHT/SQ. IN.
INTERIOR USE		
MINIMUM ABRASION (for picture molds, interior trim, ceilings)	.00025"	12 mg.
MEDIUM ABRASION (for door frames, window frames, window stools)	.0004"	18 mg.
MAXIMUM ABRASION (for hardware, baseboards, handrails, doors)	.0008"	37 mg.
EXTERIOR USE	.0008"	37 mg.

NOTE: To preserve the original beauty and appearance, we recommend periodic removal of soil accumulation using a soft bristled brush and any mild, non-etching, non-abrasive soap or detergent. A properly initiated maintenance program will add years to the useful beauty and appearance of any structure.

Reynolds Architectural Finishes—Make use of sulphuric acid anodizing under special process and material control, using the best methods known regardless of cost involved, thereby assuring a thicker, more uniform oxide coating, which has maximum abrasion resistance, weather resistance, and color retention. On all standard Reynolds Architectural Finishes durable lacquer coatings are provided as additional protection from abuse during construction.

Reynolds Standard Architectural Finishes are available only on the following alloys:

NATURAL COLOR (ANODIZED)	ALLOYS FOR CLOSEST COLOR MATCH SHEET AND EXTRUSION ALLOY
MEDIUM SLATE GREY	RF-20
PEARL GREY	RF-15
SILVER GREY	RF-10

REYNOLDS FINISH DESIGNATION SYSTEM

Reynolds has adopted a four digit system for proper finish description. The first 3 digits are self-explanatory. The 4th digit is assigned by Reynolds Metals Company based on architect's approval of samples in color desired. The numbers and specifications that apply to architectural finishes follow:

First Digit—Application

3XXX Architectural Interior
4XXX Architectural Exterior

Second Digit—Basic Color

X0XX Natural (*Alloy determines color*)
X1XX Blue
X2XX Green
X3XX Yellow
X4XX † Red
X5XX Gold
X6XX Black
X7XX Brown

†*Available on 3xxx (interior) finish only*

Third Digit—Surface Conditioning

XX0X Mill Finish—The surface which naturally results from sheet rolling or extrusion processes.
XX1X Chemically Brightened Finish—Highly lustrous bright finish.
XX2X Buffed Finish—Smooth mirror-like finish.
XX3X Belt Sanded Finish—A textured finish of parallel scratch lines in varying degrees of definition, produced with belts of 80-150 emery.
XX4X Sand Blasted Finish—Pleasingly rough texture in varying degrees of roughness produced from compressed air and sand using 40 to 200 mesh sand.
XX5X Satin Finish—A soft textured finish of parallel scratch lines in varying degrees of fineness produced on belt sanders or rotary wheels using 160-220 emery.
XX6X Caustic Etched Finish—Attractive, widely-used chemical finish similar to finely etched glass in varying degrees of etch, controllable by concentration, temperature, and time.
XX7X Buffed and Chemically Brightened Finish—Smooth, highly lustrous, bright mirror-like finish.

Fourth Digit—Special Processing Information

XXX0-XXX9—Contains specific processing information. Available to processors who meet Reynolds rigid requirements and high standards.

PORCELAIN ENAMEL FINISH

Opaque and clear vitreous enamels are fired to the aluminum surface at temperatures of 950°-1000°F producing an extremely adherent, tough, glass-like film which can be drilled, sawed, and lightly formed without spalling. Porcelain enamel frits are available in a wide variety of glossy or matte, face-resistant colors. These finishes are available from a selected group of processors who have the special processing equipment necessary. Porcelain enamel frits should be applied to Reynolds special enameling sheet alloy 6061-H12.

ORGANIC FINISHES

Paint, Colored Lacquers, Enamels—Can be applied to any properly prepared surface. Removal of grease and treatment with chromate or phosphate conversion coating assures a good bond.

DESIGNING FOR LONG LIFE WITH ALUMINUM

Among the many favorable characteristics of aluminum and its alloys, corrosion resistance ranks as a major factor. In architectural application, the resistance to weathering of aluminum has been recognized for over 60 years. From the first architectural application of consequence, a roof on the San Gioacchino Church in Rome in 1897, the number and variety of aluminum alloy architectural applications have grown to the point where they cannot be cataloged.

Among the alloys most commonly employed in the architectural field and building trades are the 1000, 3000, 5000 and 6000 series. These alloys exhibit good to excellent corrosion resistance in industrial, marine and rural environments. Alloys, such as 1100 or 3003, are generally employed where structural strength is not a primary requirement. These alloys are considered to be adequate for all but the most severe conditions of exposure. For exposure to marine environments, aluminum alloys of the 5000 series, particularly 5052 and 5154, offer the highest order of corrosion resistance. In severe industrial or industrial-marine environments, alloys of the 5000 series, such as 5052 and 5154, and the clad alloys, such as clad 3003 or clad 3004, are generally employed. Alloys 6061, 6062 and 6063 are often employed for extruded shapes and offer both strength and corrosion resistance.

Alloys of the 2000 series and 7000 series are sometimes employed in the fabrication of structures because of their high strength characteristics. Except in rural and non-corrosive environments, these alloys should be protected either by cladding or by the application of a protective organic coating.

For architectural purposes, the common alloys (those in the 1000, 3000, 4000 and 5000 series) and the age hardenable alloys of the 6000 series may be used in combination to obtain the desired architectural effects and structural strength.

The resistance to corrosion of aluminum alloys depends on the presence of a very thin film of aluminum oxide that protects the metal surface. This inert film forms immediately upon the metal when it is in contact with air. At room temperature the naturally occurring oxide film rarely exceeds a thickness of one-millionth of an inch. At higher temperatures a somewhat thicker protective oxide film occurs. This extremely thin protective film effectively halts further atmospheric oxidation of aluminum, and prevents or slows down chemical reaction between aluminum and the chemicals found in marine and industrial environments. Furthermore, this natural film is capable of repairing itself. As the protective oxide film is damaged by chemical or mechanical action, a new film will form over the exposed metal, provided there is sufficient oxygen present in the environment. This is true in atmospheric exposure conditions as well as in many applications in sea water, fresh water and in chemical plants. The oxide film protects the metal surface under extremes of temperature conditions and remains intact even at the melting point of aluminum.

PROTECTION AGAINST ATMOSPHERIC ATTACK:

Although atmospheric corrosion of aluminum is a superficial phenomenon resulting initially in minor pitting or in a general and uniform adherent film of aluminum oxide, it is sometimes necessary to protect the metal surface either to maintain architectural beauty or to overcome some very aggressive chemical conditions which might lead to early deterioration of the structure.

Three major types of protection are commonly employed. Where appearance is of primary concern, many architectural items are anodized (see Architectural Finishes for Aluminum Section). Provided the anodic film is of sufficient thickness and is properly maintained (annual or biannual washing with water containing a wetting agent usually suffices), the anodic film will offer protection even under severe conditions of exposure for periods ranging up to thirty or more years. The thicker the anodic film, the longer will be the life of the film.

Another means of protecting the aluminum surface and maintaining its appearance is the application of organic coatings, such as paints and waxes. Because organic films are subject to deterioration over a relatively short period of time, it is necessary to replace these films at regular intervals. The life of these films will range from three to six months for most wax type protective coatings to as much as ten years for certain of the synthetic resins, such as vinyl and epoxy base coatings.

Where aesthetic considerations are not involved, the strength of aluminum alloys in highly corrosive environments can be maintained by the use of clad alloys. Even high strength aluminum alloys such as 7075 and 2024 are adequately protected by this means. Usually it is not necessary to employ these aircraft type alloys for ordinary architectural service, for the clad 3003 and clad 3004 alloys will prove to be adequate.

PROTECTION AGAINST GALVANIC ATTACK:

Galvanic action, the most common cause of aluminum corrosion, is the result of contact between aluminum and a dissimilar metal in the presence of an electrolyte (chemicals dissolved in water). Certain dissimilar materials do not initiate corrosion of aluminum, but in themselves suffer accelerated attack when in contact with aluminum. These metals are considered to be anodic. Both magnesium and zinc are in this category.

Other dissimilar metals, such as iron, copper, lead and tin, initiate and accelerate corrosion when in contact with aluminum and are termed cathodic. To protect against, or to eliminate the possibility of galvanic corrosion, one of the following protective measures should be employed:

1 Choose compatible materials of construction. Wherever possible, employ aluminum alloys for fasteners and components.

2 Where it is necessary to use a dissimilar metal, the cathodic metal should be either galvanized or cadmium plated to reduce the possibility of accelerated attack.

3 If dissimilar metal fasteners are required, passive stainless steels of the 300 series or of the 400 series (13% chromium or greater) are very satisfactory.

4 Gasketing materials such as neoprene, polyvinyl chloride, and most organic based coatings will prevent galvanic corrosion by insulating the two dissimilar metals. These materials should be non-absorbent.

We have been considering only that type of galvanic corrosion which results from direct metal to metal contact. Another source is the electrolytic deposition of cathodic metals onto aluminum from water which has drained off copper gutters and flashings. To protect against this source of corrosion, it is necessary to paint the copper parts.

PROTECTION AGAINST OTHER ATTACKS:

At times corrosion of aluminum can be initiated by contact with concrete, masonry or wood surfaces because such contacts will shield the metal from oxygen, thus preventing the natural repair of the protective oxide film. This attack can be effectively prevented by applying an inexpensive, organic coating (two or more coats of a bituminous, mastic or asphaltic base material). Tar or asphalt impregnated building paper may be employed, but it is not as effective as the protective organic coatings applied directly to the aluminum.

Alkaline building materials, such as concrete and mortar, cause an etching attack on aluminum which affects appearance but does not structurally weaken the aluminum shape. This attack can be prevented by the use of stripable organic films or by the application of a clear methacrylate coating.

Although aluminum is inert when in contact with, or buried in, many soil types, there are conditions where corrosion may become a problem. The application of an inexpensive petroleum based organic coating will normally be satisfactory in preventing this action.

SUGGESTED SPECIFICATIONS—ARCHITECTURAL ALUMINUM SECTION

(Note: Architectural Aluminum should be specified in a separate section for convenience and more accurate bidding. Other metal work sections should make cross reference to this section under scope as work not included.)

General Conditions

"The General Conditions of the Contract for The Construction of Buildings," a standard form of the American Institute of Architects, current edition (and "Supplementary General Conditons"), are part of this specification.

Scope of the Work

Furnish labor, materials, equipment necessary to complete aluminum work indicated on drawings or herein specified.

Furnish all parts, fasteners, accessories and miscellaneous devices necessary for complete fabrication, assembly, erection and installation. Provide protective coatings.

Provide materials and labor for caulking, sealing and grouting as required by this section. (May be specified in other sections.) Do final cleaning.

Materials

Aluminum alloys specified in this section shall be products of Reynolds Metals Company, General Sales Office, Richmond 18, Virginia.

Furnish

Specify by form, name, shape, section, alloy, temper, pattern, finish, color and dimensions if not given on drawings. The following are some examples:

EXTRUDED SHAPES:

Handrail RMC Section No. 7885
Alloy and Temper 6063-T5
Satin finish, 60 minute anodize light gold and lacquered. One dip coat of clear, methacrylate lacquer

STRUCTURAL SHAPES:

American Standard Channels 3″ 1.46/Ft.
RMC Section No. 6063
Alloy and Temper 6061-T6

SHEET ALUMINUM:

Fluted sheet M-104 one side
Alloy and Temper 3003-H14
.04″ and .125″ thick as indicated on the drawings
30 minute anodized bright finish

Installation, Erection, Workmanship

SHOW DRAWINGS:

Submit complete shop drawings according to articles of general conditions.

SAMPLES:

Submit 2 samples of each material representative of color, finish, texture and quality according to article 8 of General Conditions.

EXPANSION AND CONTRACTION:

Aluminum work shall be fabricated, anchored and fastened so as to provide for adequate expansion and contraction without causing undue stresses or deformation. (*Note:* Architectural alloys will expand about $\frac{5}{32}$″ per 10′ of length for 100 degree F temperature rise.)

Locate and construct expansion joints so as to prevent accumulative expansion and maintain watertightness.

DISSIMILAR MATERIAL:

Metals—Protect aluminum at contact with metals other than stainless steel or zinc by (1) one heavy brush coat primer of Zinc Chromate in synthetic resin vehicle and two coats of aluminum metal and masonry paint or (2) a heavy brush coat of Alkali-Resistant Bituminous paint or (3) a non-porous tape or gasket.

Masonry, Concrete, Plaster—Protect aluminum at contact with masonry, concrete, plaster by a heavy brush coat of (1) Alkali-Resistant Bituminous paint or (2) clear methacrylate lacquer.

Wood—Protect aluminum at contact to wood exposed to repeated wetting or treated wood (if non-compatible preservatives are used) by (1) a heavy brush coat of aluminum pigment bituminous paint or (2) two coats of aluminum metal and masonry paint. Caulk joints.

(Note: Consult paint manufacturers for data on paints and protective coatings.)

DRAINAGE FROM OTHER METALS:

(Design should preclude situations which will necessitate drainage from dissimilar metals onto exposed surfaces of aluminum.) Paint dissimilar metals where drainage is onto or across or through aluminum materials.

FABRICATION:

Aluminum work shall be fabricated by skilled mechanics experienced in performing highest quality work. Work shall be free of blemishes, tool marks, burrs, scars, abrasions or other defects which may impair its strength or durability or adversely affect its appearance. Edges shall be smooth, profiles sharp and finish uniform in texture and color. Joints, welds and intersections shall be properly made and fitted.

ERECTION, INSTALLATION:

Aluminum work shall be erected and installed plumb, level, square and in proper alignment to adjacent work. Work shall be free of wave, buckles or other defects. Provide proper adjustment devices such as shims, wedges and slots to assure proper alignment and allowance for usual discrepancies in other work. Provide anchors, brackets and other methods of securing work as required. Inspect supporting structure or other work affecting alignment of aluminum work, make such corrections as necessary before beginning installation or erection of aluminum work.

PROTECTION:

Aluminum work shall be protected from abuse or accidental damage during shipment, erection, installation and during construction of adjacent work. Protection shall be accomplished by proper crating and packaging, application of stripable masking tape, and where these methods are not practical by use of heavy coat of petroleum jelly.

All damaged work shall be replaced immediately according to article 19 of General Conditions.

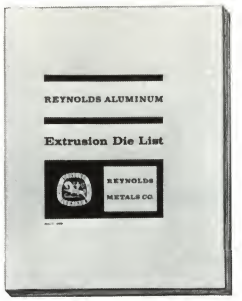
(Note: A heavy dip coat of methacrylate lacquer is recommended as permanent protection in addition to the above as part of permanent finish.)

CLEANING:

Clean all aluminum work by removing protective tape and other coating. Use mild soap or detergents and clear petroleum spirits. Acids, caustics and abrasives shall not be used. Where cleaners are used to remove excess sealing compounds care shall be exercised to prevent damage to seals. Staining of or damage to adjacent work shall be prevented.

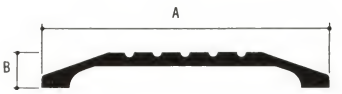
WRITE FOR FREE REYNOLDS ALUMINUM EXTRUSION DIE CATALOG

Here under one cover is a complete reference file of the thousands of extruded shapes available without die charge . . . includes structurals, shapes, rod, bar and specially formed sections from all industries. These shapes often adapt readily to architectural applications. Contains cross reference lists, production limits, packing data and a special 118 page section on architectural shapes.

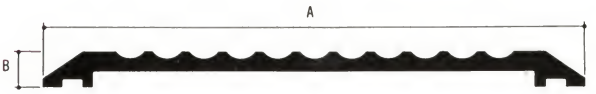


SADDLE

SECTION NO.	A INCHES	B INCHES	APPROX. WT. LBS./FT.
3650	3	½	.658
3651	4	½	.787
3662	5	½	1.002
3663	6	½	1.189



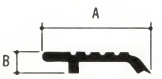
SECTION NO.	A INCHES	B INCHES	APPROX. WT. LBS./FT.
7883	7½	½	1.652



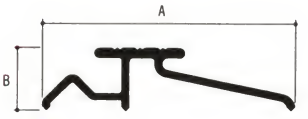
WEATHERSTRIP

Alloy and temper 6063-T5. Standard length 16′-3″.

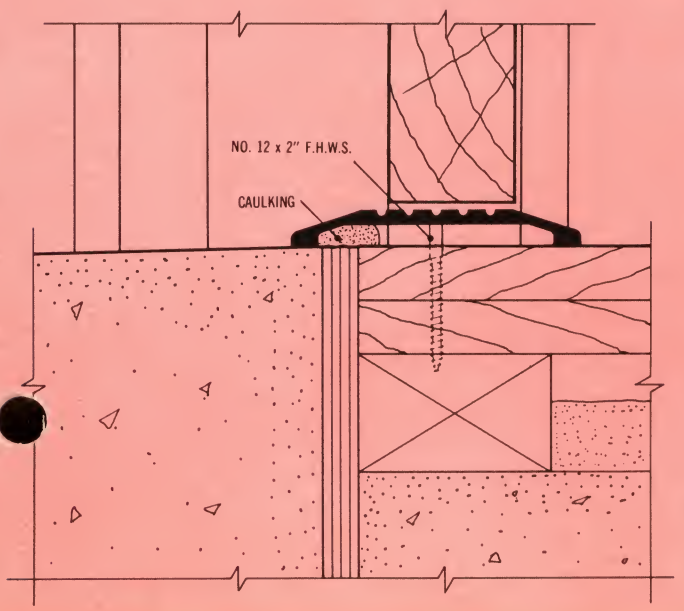
SECTION NO.	A INCHES	B INCHES	APPROX. WT. LBS./FT.
3796	1⅜	¼	.184

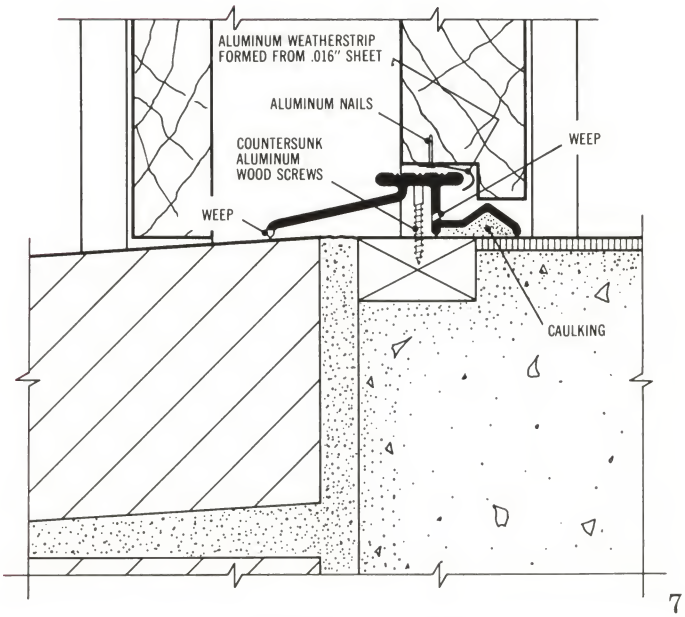


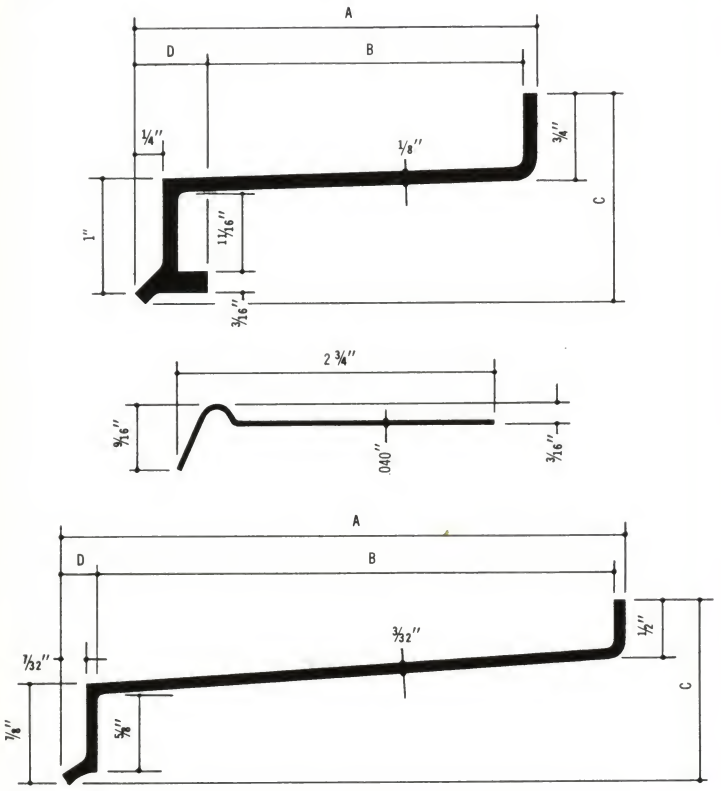
SECTION NO.	A INCHES	B INCHES	APPROX. WT. LBS./FT.
3704	3½	9/16	.577



SECTION NO.	A INCHES	B INCHES	APPROX. WT. LBS./FT.
5192	3½	⅞	.649







ANCHOR SILL—TYPE "B"

Alloy and temper 6063-T42. Standard length 21′-0″.

SECTION NO.	APPROX. WT. LBS./FT.	A INCHES	B INCHES	C INCHES	D INCHES
13695	.773	3½	2¾	1 13/16	⅝
13696	.847	4	3¼	1 27/32	⅝
9558	.935	4½	3¾	1⅞	⅝
13008	.989	5	4¼	1 29/32	⅝
13009	1.063	5½	4¾	1 15/16	⅝
13697	1.147	6	5¼	1 31/32	⅝
13698	1.519	6 9/16	5¾	2	2 1/32

ANCHOR CLIP FOR SILL TYPE "B"

CLIP length: 0′-2″.

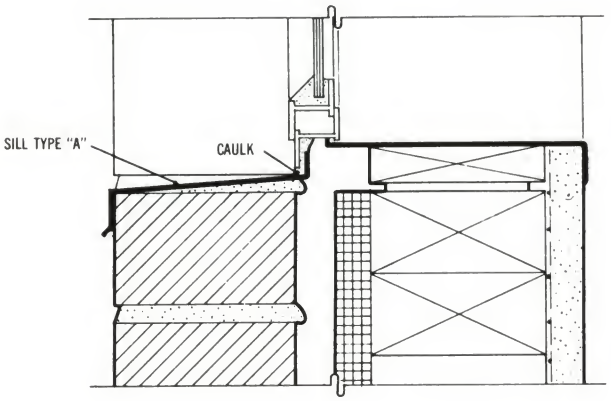
13007	.144

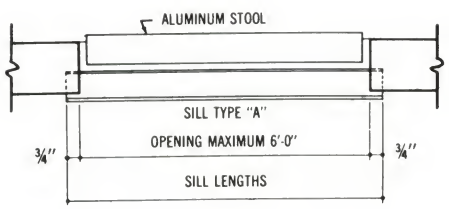
LUG SILL—TYPE "A"

Alloy and temper 6063-T42. Standard length 21′-0″.

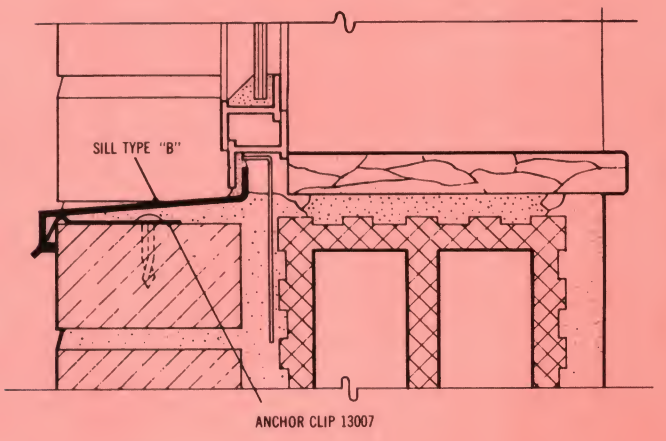
SECTION NO.	APPROX. WT. LBS./FT.	A INCHES	B INCHES	C INCHES	D INCHES
3686	.678	4 29/32	4½	1 9/16	5/16
3687	.734	5 13/32	5	1 19/32	5/16
3685	.791	5 29/32	5½	1⅝	5/16

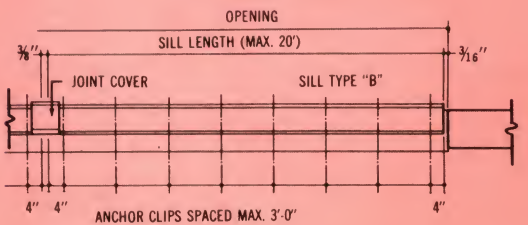
LUG SILL—TYPE "A"
SUITABLE FOR INSTALLATION
AS UNIT SILL

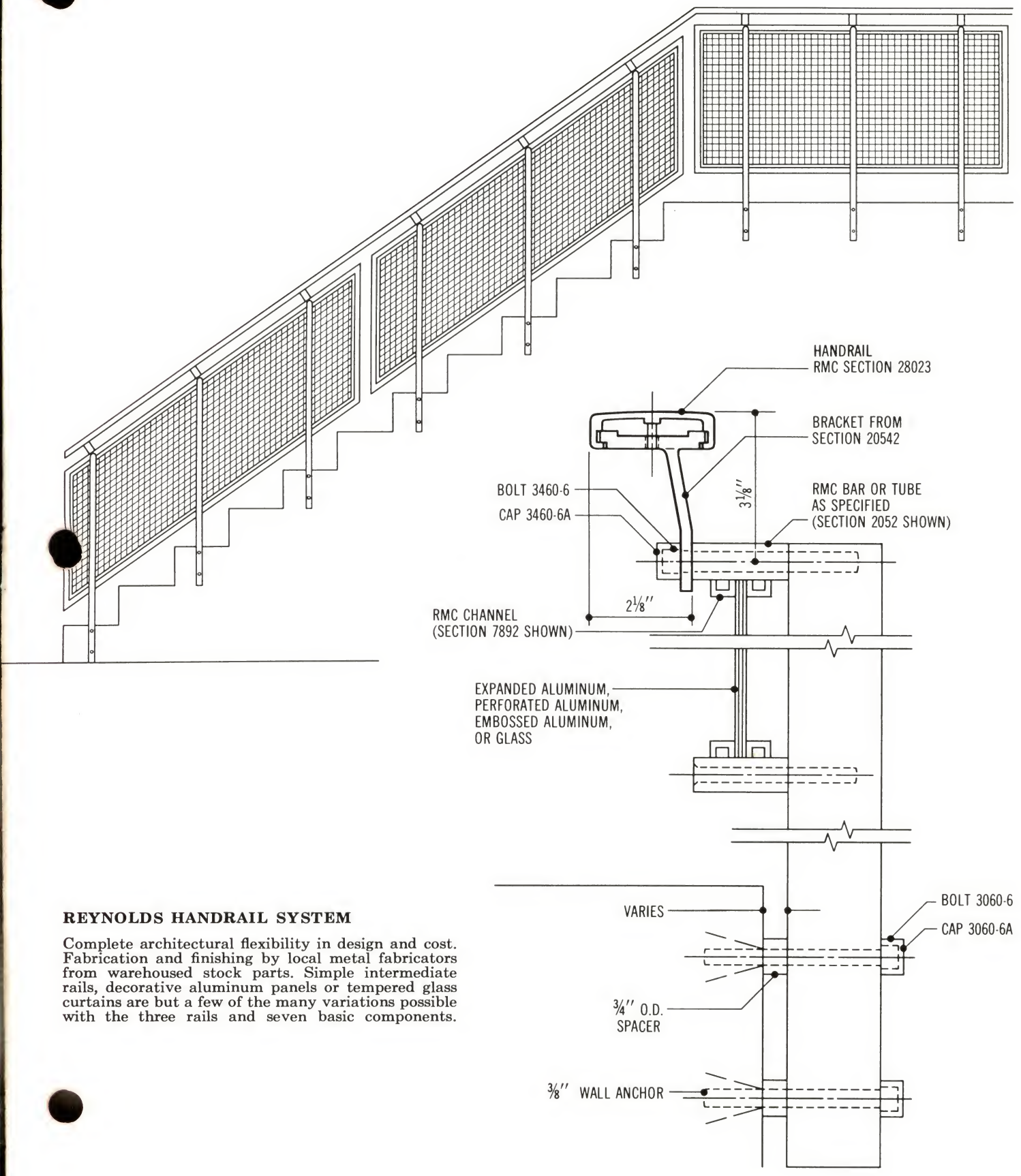




ANCHOR SILL—TYPE "B"
SUITABLE FOR INSTALLATION
AS UNIT SILL OR AS
CONTINUOUS SILL

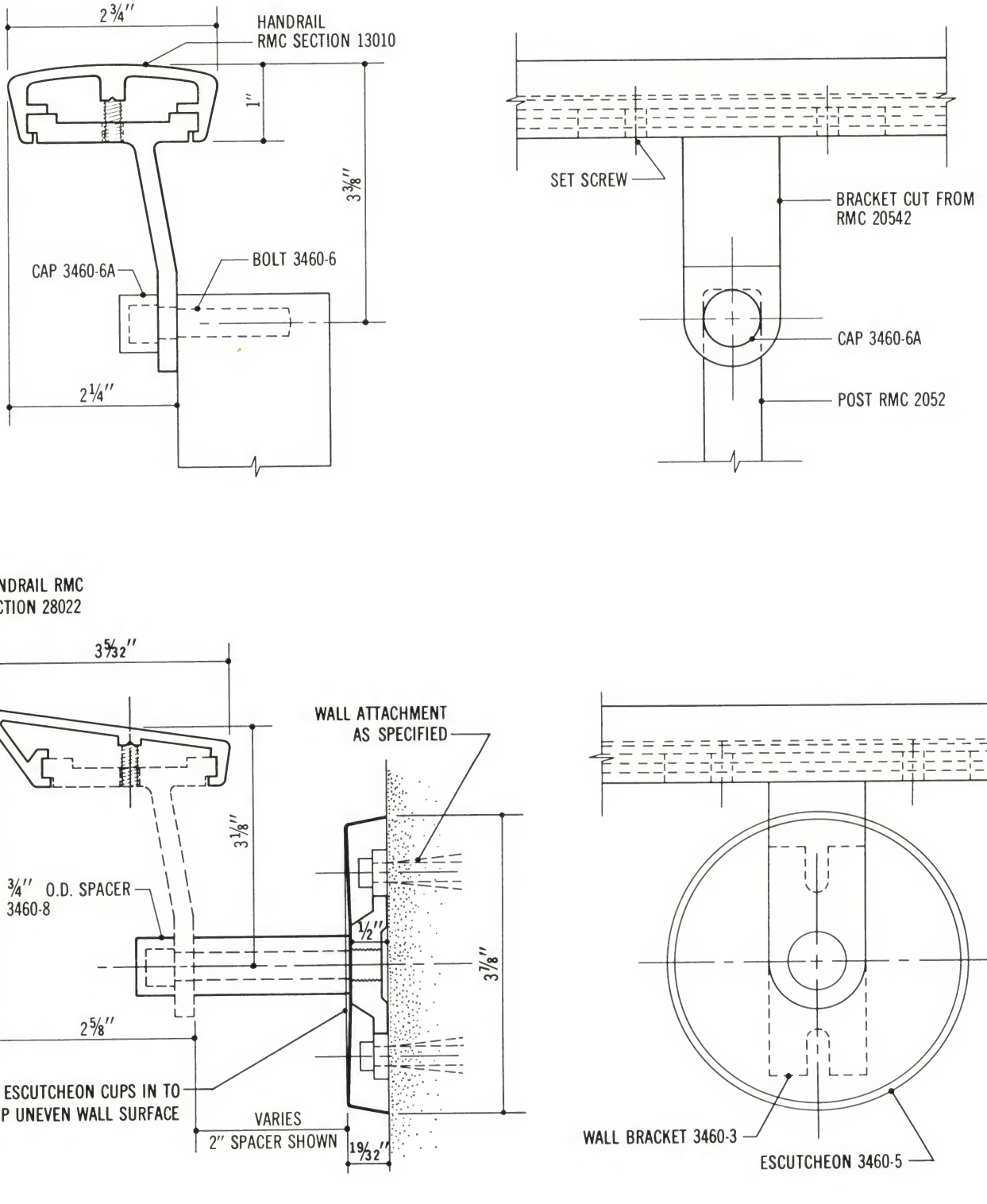






REYNOLDS HANDRAIL SYSTEM

Complete architectural flexibility in design and cost. Fabrication and finishing by local metal fabricators from warehoused stock parts. Simple intermediate rails, decorative aluminum panels or tempered glass curtains are but a few of the many variations possible with the three rails and seven basic components.

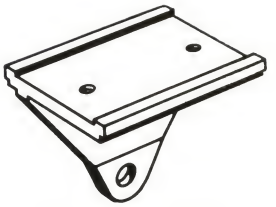


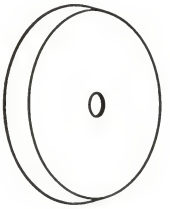
HANDRAIL SECTIONS — POST AND WALL BRACKET MOUNTING

SYSTEM ACCESSORIES

PART NO.	DESCRIPTION	MATERIAL
3460-3	WALL BRACKET	6063-T5
3460-4	HANDRAIL BRACKET	6063-T5
3460-5	ESCUTCHEON	RF10-BRUSHED FINISH
3460-6	CONNECTOR BOLT	STAINLESS STEEL
3460-6A	BOLT CAP	6063-T5
3460-8	SPACER	6063-T5

WALL BRACKET


HANDRAIL BRACKET


ESCUTCHEON

CONNECTOR BOLT

BOLT CAP

3/4" O.D. SPACER

All extrusions are furnished in alloy and temper 6063-T5, in mill condition for finishing by fabricators. Standard lengths are 20'-0".

SYSTEM HANDRAIL BRACKET EXTRUSION

SECTION NO.	WIDTH	DEPTH	APPROX. WT. LBS./SQ. FT.
20542	2¼"	3⅜"	1.697

20542

SYSTEM HANDRAILS

SECTION NO.	WIDTH	DEPTH	APPROX. WT. LBS./SQ. FT.
13010	2¾"	1"	.858
28022	3½"	1⅛"	.853
28023	2⅝"	¾"	.650

13010

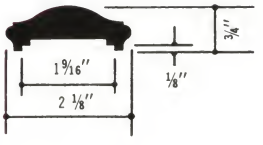
28022

28023

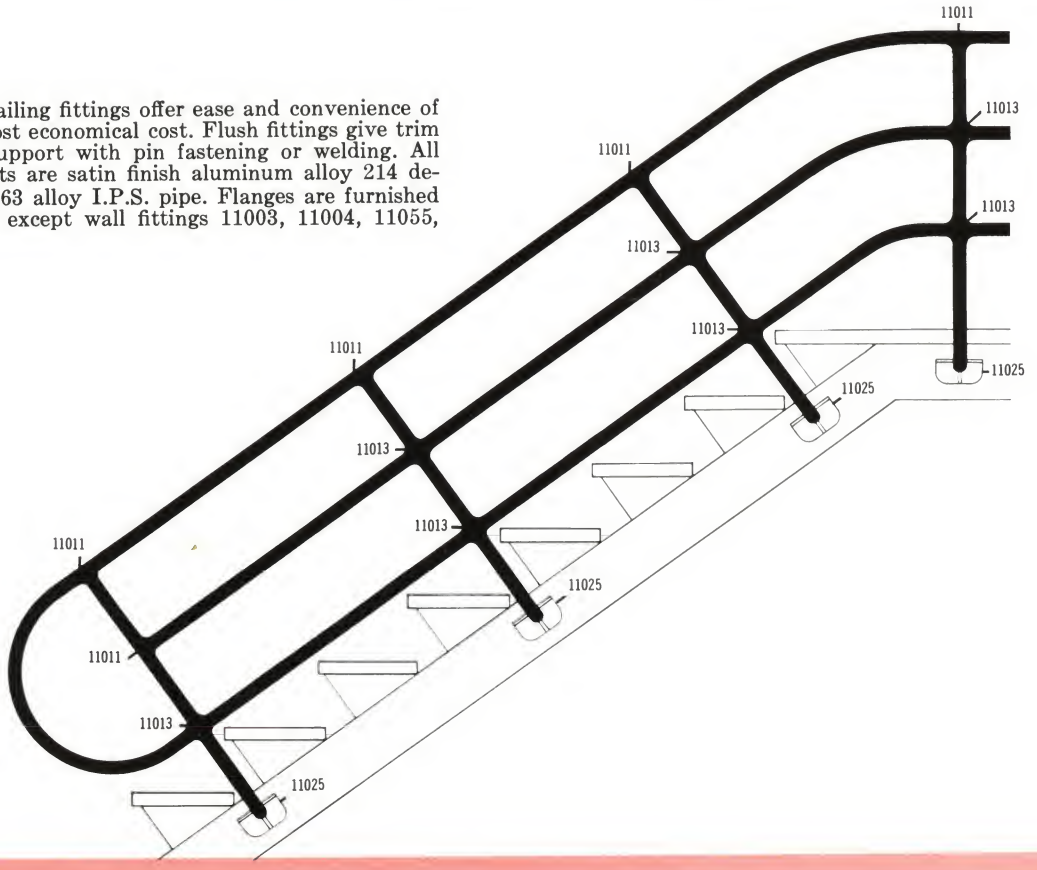
MISCELLANEOUS HANDRAILS

SECTION NO.	WIDTH	DEPTH	APPROX. WT. LBS./SQ. FT.
7885	2⅛"	¾"	1.030

7885



11000 Series pipe railing fittings offer ease and convenience of installation at a most economical cost. Flush fittings give trim lines and sturdy support with pin fastening or welding. All fittings and brackets are satin finish aluminum alloy 214 designed to match 6063 alloy I.P.S. pipe. Flanges are furnished without bolt holes except wall fittings 11003, 11004, 11055, 11056.



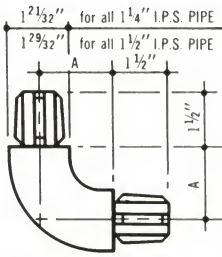
ALUMINUM I.P.S. HANDRAIL AND STANDARD PIPE

Furnished in Mill Finish 20′-0″ lengths with plain ends in 6063-T6 alloy and temper.

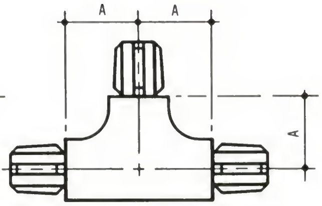
SIZE I. P. S.	OUTSIDE DIAMETER	INSIDE DIAMETER	WALL THICKNESS	APPROX. WEIGHT LBS./PER FT.
1″	1.315″	1.049″	.133″	.581
1¼″	1.660″	1.380″	.140″	.785
1½″	1.900″	1.610″	.145″	.939
2″	2.375″	2.067″	.154″	1.262

PIPE SIZE	FITTING ANGLE	DIMENSIONS—INCHES																				
I. P. S.	(∅)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1¼″	90° 40° 35°	2 2 2	1¼ 1¼	2¾ 2¾	⅜ ⅜ ⅜	1	2⅛ 2⅛ 2⅛	1¾	1⅞	½	1	3	4⅝	1¼	2	2⅛	3⅞	1³⁄₁₆	2½ 2½ 2½	2⅛ 1⅞	3¾ 3¾	6 6 6
1½″	90° 40° 35°	2¼ 2¼ 2¼	1½ 1½	3 3	7⁄16 7⁄16 7⁄16	1⅛	2⅞ 2⅞ 2⅞	2	2⅛	9⁄16	1⅛	3⅛	5⅛	1½	2¼	2⅜	4⅜	⅞	2¾ 2¾ 2¾	2⅜ 1¹⁵⁄₁₆	4 4	6½ 6½ 6½

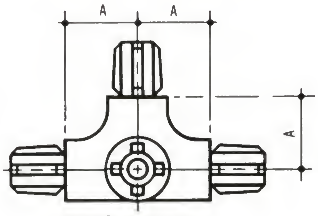
90° FLUSH TYPE



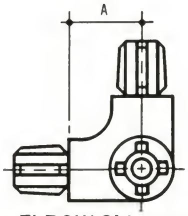
ELBOW
No. 11005 1¼" I.P.S.
No. 11006 1½" I.P.S.



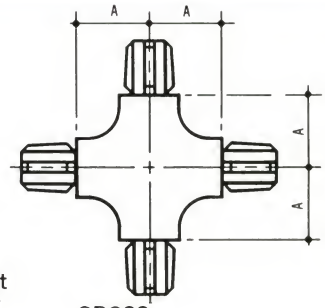
TEE
No. 11011 1¼"
No. 11012 1½"



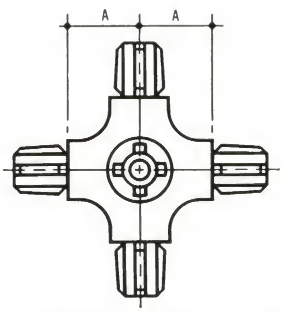
TEE Side Outlet
No. 11019 1¼"
No. 11020 1½"



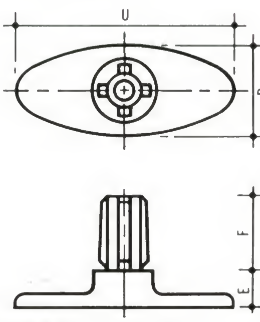
ELBOW Side Outlet
No. 11017 1¼"
No. 11018 1½"



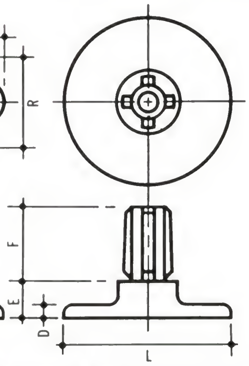
CROSS
No. 11013 1¼"
No. 11014 1½"



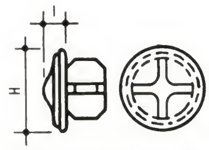
CROSS Side Outlet
No. 11021 1¼"
No. 11022 1½"



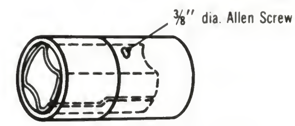
NECK FLANGE Oval Base
No. 11059 1¼"
No. 11060 1½"



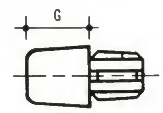
NECK FLANGE Round Base
No. 11015 1¼"
No. 11016 1½"



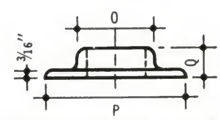
PIPE PLUGS Drive Fit
No. 11007 1¼"
No. 11008 1½"



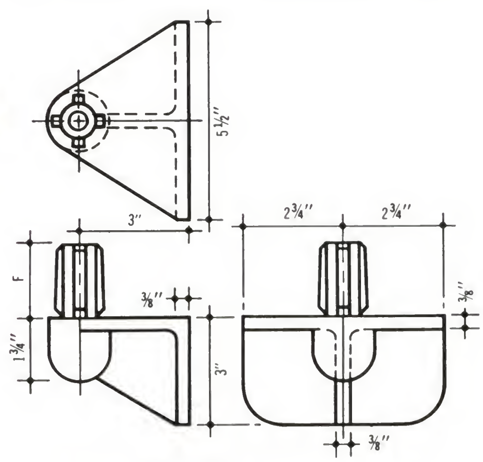
PIPERAIL SPLICE LOCK
No. 11057 1¼"
No. 11058 1½"



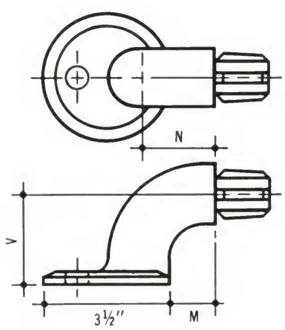
FLUSH TERMINAL CAP
No. 11023 1¼"
No. 11024 1½"



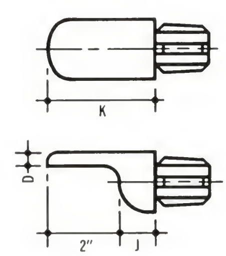
FLOOR OR WALL FLANGE
No. 11009 1¼"
No. 11010 1½"



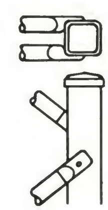
BRACKET FITTING Outside Stringer
No. 11025 1¼"
No. 11026 1½"



WALL FITTING
Dim. "V" 2½"
No. 11003 1¼"
No. 11004 1½"
Dim. "V" 3"
No. 11055 1¼"
No. 11056 1½"

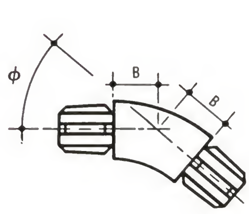


POST FITTING
No. 11001 1¼"
No. 11002 1½"

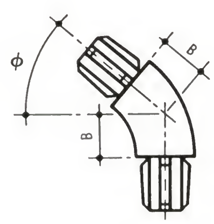


These fittings can be used for either left handrails or right handrails, also horizontally.

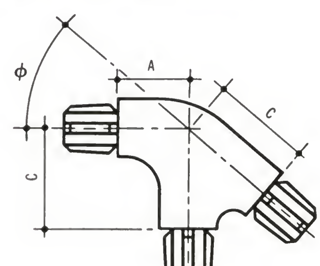
35°, 40° FLUSH TYPE



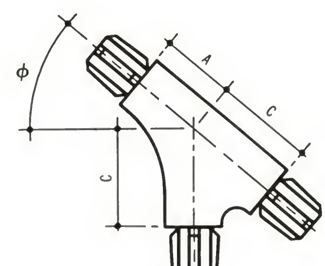
HORIZONTAL ANGLE ELL
35°
No. 11027 1¼"
No. 11028 1½"
40°
No. 11029 1¼"
No. 11030 1½"



VERTICAL ANGLE ELL
35°
No. 11031 1¼"
No. 11032 1½"
40°
No. 11033 1¼"
No. 11034 1½"

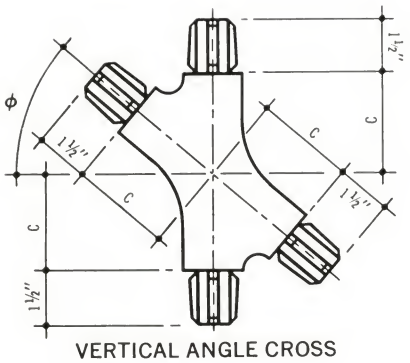


HALF HORIZONTAL ANGLE TEE
35°
No. 11035 1¼"
No. 11036 1½"
40°
No. 11037 1¼"
No. 11038 1½"



HORIZONTAL OR VERTICAL ANGLE TEE
35°
No. 11039 1¼"
No. 11040 1½"
40°
No. 11041 1¼"
No. 11042 1½"

35°, 40° FLUSH TYPE



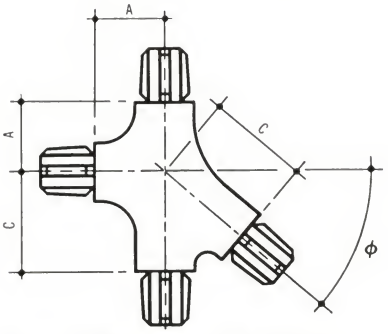
VERTICAL ANGLE CROSS

35°

No. 11043	1¼"
No. 11044	1½"

40°

No. 11045	1¼"
No. 11046	1½"



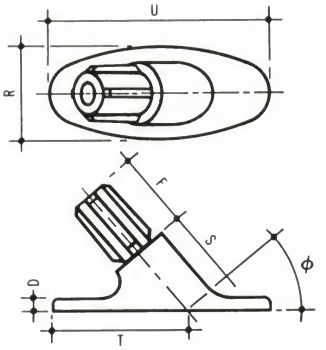
HALF VERTICAL ANGLE CROSS

35°

No. 11047	1¼"
No. 11048	1½"

40°

No. 11049	1¼"
No. 11050	1½"



ANGLE NECK FLANGE Oval Base

35°

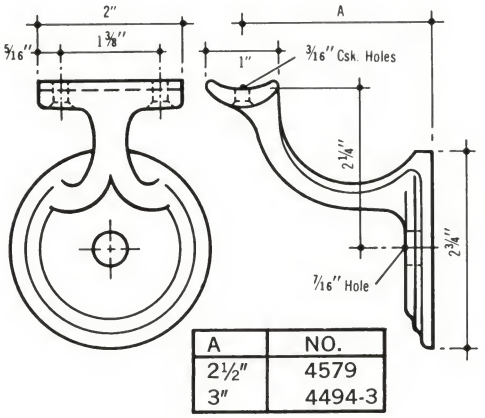
No. 11051	1¼"
No. 11052	1½"

40°

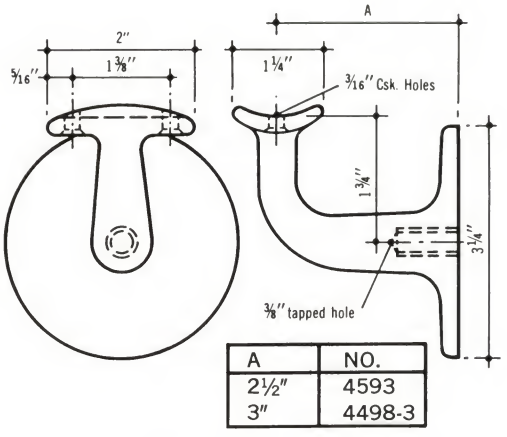
No. 11053	1¼"
No. 11054	1½"

PIPE RAIL BRACKETS

Extra long brackets—up to 5" from center of railing to wall available on request.



A	NO.
2½"	4579
3"	4494-3

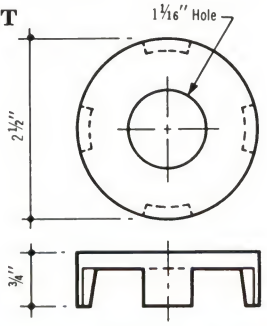


A	NO.
2½"	4593
3"	4498-3

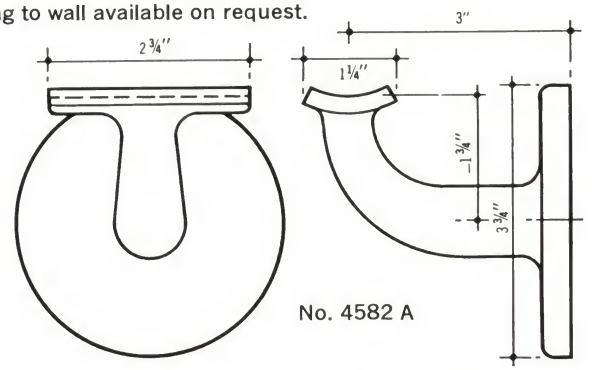
WALL BRACKET FILLER

No. 4405

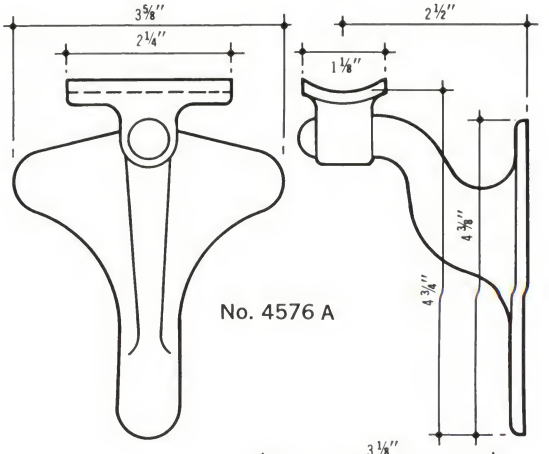
CAST IRON



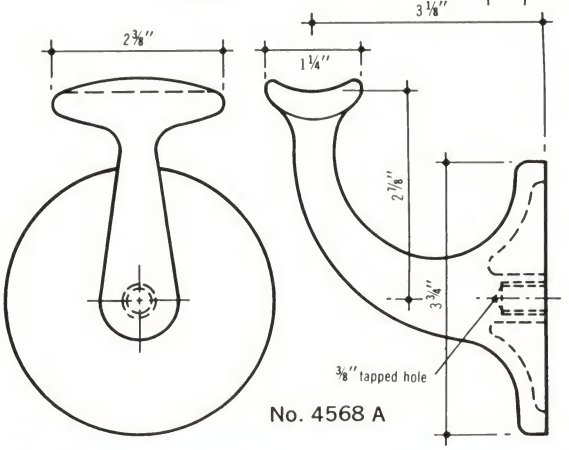
MEASUREMENTS APPROXIMATE



No. 4582 A



No. 4576 A

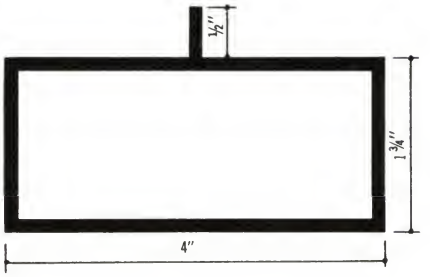


No. 4568 A

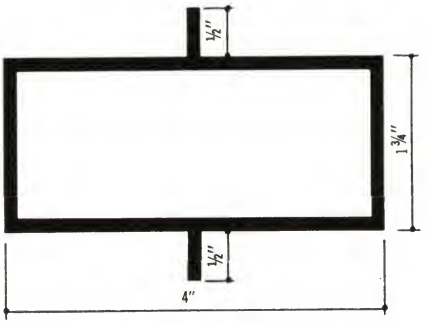
STORE FRONTS

Alloy and temper 6063-T42. Standard lengths 21′-1″.

SECTION NO.	APPROX. WT. LBS./FT.	WALL THICKNESS
11335B	1.682	.125″
22491A	1.419	.102″



SECTION NO.	APPROX. WT. LBS./FT.	WALL THICKNESS
11336B	1.756	.125″
22492B	1.481	.102″



EXTRUDED SQUARE TUBE—SQUARE CORNERS

Alloy and temper 6063-T5. Standard lengths 21′-1″.

SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.	SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.
7896	1 x 1 x ⅛	.526	13365	1¾ x 1¾ x ⅛	.974
7897	1½ x 1½ x ⅛	.826	7898	2 x 2 x ⅛	1.126

EXTRUDED RECTANGULAR TUBE—SQUARE CORNERS

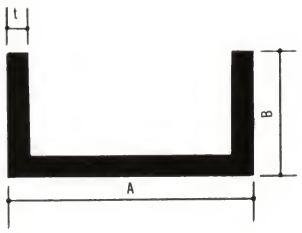
Alloy and temper 6063-T5. Standard lengths 21′-1″.

SECTION NO.	SIZE INCHES A	B	t	APPROX. WEIGHT LBS./FT.	SECTION NO.	SIZE INCHES A	B	t	APPROX. WEIGHT LBS./FT.
7899	1¾	2¼	⅛	1.126	7902	1¾	5	⅛	1.950
7900	1¾	3	⅛	1.350	7903	2	3	⅛	1.426
7901	1¾	4	⅛	1.650	13350	2	5	⅛	2.026
13459	1¾	4½	⅛	1.800					

ANGLES—SQUARE CORNERS

Alloy and temper 6063-T5. Standard lengths 16′-0″.

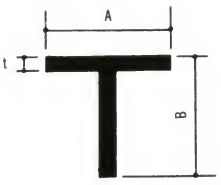
SECTION NO.	SIZE INCHES A	B	t	APPROX. WEIGHT LBS./FT.
	EQUAL ANGLES			
370	½	½	1/16	.069
563	½	½	⅛	.131
7889	⅝	⅝	⅛	.169
965	¾	¾	1/16	.109
7932	¾	¾	⅛	.206
371	1	1	1/16	.144
3562	1	1	⅛	.281
2146	1	1	3/16	.408
1803	1¼	1¼	⅛	.355
1802	1¼	1¼	3/16	.521
4630	1½	1½	⅛	.431
1804	1½	1½	3/16	.632
1820	1¾	1¾	⅛	.506
2155	2	2	⅛	.581
2284	2	2	3/16	.858
1839	2	2	¼	1.124
	UNEQUAL ANGLES			
7890	¾	⅜	3/32	.116
1846	1	½	3/32	.161
3563	1	½	⅛	.206
2280	1	¾	⅛	.244
7891	1¼	½	⅛	.244
2149	1½	¾	⅛	.319
1806	1½	1	⅛	.356
2143	2	1	⅛	.431
5497	3½	1¼	⅛	.694



CHANNELS—SQUARE CORNERS

Alloy and temper 6063-T5. Standard lengths 16′-0″.
*Standard lengths 20′-0″. †Standard lengths 22′-0″.

SECTION NO.	SIZE INCHES A	B	t	APPROX. WEIGHT LBS./FT.
7892	½	⅜	⅛	.150
4340	½	½	3/32	.148
8974	½	¾	⅛	.263
8975	⅝	⅝	⅛	.244
988	¾	⅜	⅛	.187
4339	¾	¾	⅛	.300
1269	1	½	⅛*	.263
5540	1	1	⅛	.413
3450	1¼	½	⅛*	.300
8976	1¼	1¼	⅛	.526
7893	1 7/16	½	3/32*	.254
2156	1½	½	⅛*	.330
8977	1¾	½	⅛	.374
3930	1¾	¾	⅛	.450
8978	1¾	1	⅛	.526
4391	2	½	⅛	.413
3507	2	1	⅛*	.563
8979	2¼	⅞	⅛*	.563
8980	2½	1½	⅛†	.787
7894	3	½	⅛	.563
4393	3	1	⅛	.713
8981	5	2	3/16	1.945



TEES—SQUARE CORNERS

Alloy and temper 6063-T5. Standard lengths 16′-0″.

SECTION NO.	SIZE INCHES A	B	t	APPROX. WEIGHT LBS./FT.
1358	¾	¾	⅛	.206
8982	¾	1¼	⅛	.281
8983	⅞	1¼	⅛	.300
8984	1	½	⅜	.319
8985	1	¾	⅛	.244
1213	1	1	⅛	.280
7895	1¼	⅞	⅛	.300
8986	2	¾	⅛	.394

ROD

Alloy and temper 6063-T5. Standard lengths 16′-0″.

SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.	SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.
7	½	.235	15	1	.942
11	¾	.529			

SQUARE BAR

Alloy and temper 6063-T5. Standard lengths 16′-0″.

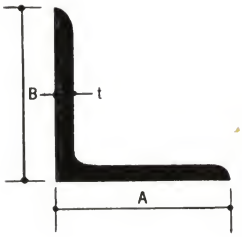
SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.	SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.
322	¼ x ¼	.076	1526	¾ x ¾	.673
5209	⅜ x ⅜	.169	1906	1 x 1	1.200
1863	½ x ½	.300	2080	1¼ x 1¼	1.875
1866	⅝ x ⅝	.468	2079	1½ x 1½	2.700

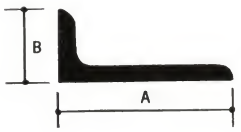
RECTANGULAR BAR

Alloy and temper 6063-T5. Standard lengths 16′-0″.

SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.	SECTION NO.	SIZE INCHES	APPROX. WEIGHT LBS./FT.
535	⅛ x ½	.076	2062	¼ x 2	.582
4011	⅛ x ⅝	.094	1773	¼ x 2½	.750
780	⅛ x ¾	.112	1754	¼ x 3	.900
536	⅛ x 1	.150	548	⅜ x ½	.225
537	⅛ x 1¼	.182	549	⅜ x ⅝	.278
538	⅛ x 1½	.224	793	⅜ x ¾	.338
539	⅛ x 1¾	.263	1497	⅜ x 1	.450
540	⅛ x 2	.300	1427	⅜ x 1¼	.561
541	3/16 x ½	.113	1694	⅜ x 1½	.676
542	3/16 x ¾	.169	2066	⅜ x 2	.900
543	3/16 x 1	.226	1755	⅜ x 3	1.350
544	3/16 x 1¼	.281	1536	½ x ¾	.449
545	3/16 x 1½	.337	1469	½ x 1	.600
547	3/16 x 2	.450	1684	½ x 1¼	.750
1772	3/16 x 2½	.562	1696	½ x 1½	.882
925	¼ x ½	.147	2053	½ x 2	1.200
792	¼ x ⅝	.188	1769	½ x 2½	1.515
3629	¼ x ¾	.226	1437	½ x 3	1.800
1495	¼ x 1	.300	1501	¾ x 1½	1.320
1403	¼ x 1¼	.376	2052	¾ x 2	1.764
2205	¼ x 1½	.450	1733	1 x 1½	1.818
2008	¼ x 1¾	.526	2038	1 x 2	2.400

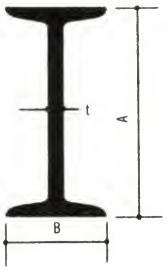
All structurals: Alloy and temper 6061-T6. Standard lengths 20′-0″ and 25′-0″.





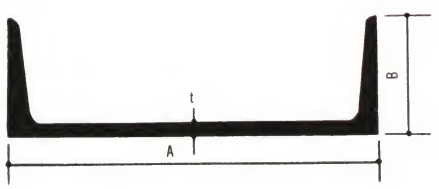
ANGLES—STANDARD STRUCTURAL

SECTION NO.	SIZE INCHES A B t	APPROX. WEIGHT LBS./FT.
	EQUAL ANGLES	
2318	¾ x ¾ x ⅛	.205
118	1 x 1 x ⅛	.280
5640	1 x 1 x 3/16	.480
5665	1 x 1 x ¼	.524
4088	1¼ x 1¼ x ⅛	.358
4066	1¼ x 1¼ x 3/16	.522
2386	1¼ x 1¼ x ¼	.676
122	1½ x 1½ x ⅛	.432
121	1½ x 1½ x 3/16	.631
2055	1½ x 1½ x ¼	.826
2601	1¾ x 1¾ x ⅛	.507
2696	1¾ x 1¾ x 3/16	.748
4307	1¾ x 1¾ x ¼	.976
8001	1¾ x 1¾ x 5/16	1.21
1104	2 x 2 x ⅛	.588
4613	2 x 2 x 3/16	.868
1822	2 x 2 x ¼	1.133
5567	2 x 2 x 5/16	1.388
2255	2 x 2 x ⅜	1.639
3998	2½ x 2½ x 3/16	1.088
4304	2½ x 2½ x ¼	1.763
4696	3 x 3 x 3/16	1.273
2695	3 x 3 x ¼	1.720
5461	3 x 3 x 5/16	2.123
1102	3 x 3 x ⅜	2.526
5808	3 x 3 x ½	3.293
3659	3½ x 3½ x ¼	2.029
9975	3½ x 3½ x ⅜	2.986
9974	3½ x 3½ x ½	3.904
4607	4 x 4 x ¼	2.329
5175	4 x 4 x ⅜	3.436
	UNEQUAL ANGLES	
2379	1½ x 1¼ x ⅛	.395
1028	1½ x 1¼ x 3/16	.576
4087	1½ x 1¼ x 3/16	.576
591	1¾ x 1¼ x ⅛	.430
1029	1¾ x 1¼ x 3/16	.635
1314	2 x 1½ x ⅛	.508
1840	2 x 1½ x 3/16	.748
2363	2 x 1½ x ¼	.976
2163	2½ x 2 x 3/16	.980
5568	2½ x 2 x ¼	1.283
2164	3 x 2 x 3/16	1.091
5361	3 x 2 x ⅜	2.0
3661	3 x 2 x ¼	1.432
3437	3 x 2½ x ¼	1.568
3660	3½ x 2½ x ¼	1.718
2697	4 x 3 x ¼	2.029
5569	4 x 3 x ⅜	2.986



I BEAMS—STANDARD STRUCTURAL

SECTION NO.	SIZE INCHES A B t	APPROX. WEIGHT LBS./FT.
2169	3 x 2.33 x .170	2.332
7979	4 x 2.66 x .190	2.725
2653	5 x 3.00 x .210	3.536
4620	6 x 3.33 x .230	4.248
5196	8 x 4.00 x .270	6.310
4721	10 x 4.66 x .310	8.726



CHANNELS—STANDARD STRUCTURAL

SECTION NO.	SIZE INCHES A B t	APPROX. WEIGHT LBS./FT.
351	3 x 1.41 x .170 web	1.435
4015	3 x 1.49 x .258 web	1.780
2645	4 x 1.58 x .180 web	1.884
2644	4 x 1.64 x .247 web	2.280
2642	5 x 1.75 x .190 web	2.576
2641	5 x 1.88 x .325 web	3.187
5710	6 x 1.92 x .200 web	2.9
2600	6 x 1.94 x .225 web	3.0
1367	6 x 2.03 x .314 web	3.736

SHEET AND PLATE

Alloy and temper 3003-H14 and 5005-H14

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.020	36 x 96	.063	36 x 96
.025	36 x 96	.063	36 x 120
.025	36 x 120	.063	48 x 96
.030	36 x 96	.063	48 x 120
.030	48 x 96	.063	48 x 144
.032	36 x 96	.080	36 x 96
.032	36 x 120	.080	48 x 96
.032	48 x 96	.080	48 x 144
.032	48 x 144	.090	36 x 96
.040	36 x 96	.090	48 x 144
.040	36 x 120	.125	36 x 96
.040	48 x 96	.125	48 x 120
.040	48 x 144	.125	48 x 144
.050	36 x 96	.125	60 x 144
.050	36 x 120	.190	36 x 96
.050	48 x 96	.190	48 x 144
.050	48 x 144		

PLAIN FINISHING SHEET

Alloy and temper RF10-H14

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.020	36 x 96	.050	36 x 120
.032	36 x 96	.050	48 x 120
.032	36 x 120	.050	48 x 144
.032	48 x 96	.063	36 x 120
.032	48 x 144	.063	48 x 120
.040	36 x 96	.063	48 x 144
.040	36 x 120	.080	48 x 120
.040	36 x 144	.080	48 x 144
.040	48 x 96	.090	36 x 96
.040	48 x 120	.090	48 x 120
.040	48 x 144	.080	48 x 144
.050	36 x 96		

3003-F PLATE

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.250	36 x 96	.500	36 x 96
.250	48 x 144	.750	36 x 96
.375	36 x 96		

6061-T6 PLATE, BARE

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.250	48 x 144	1.000	48 x 144
.375	48 x 144	1.500	48 x 144
.500	48 x 144	2.000	48 x 144
.625	48 x 144	2.500	36 x 96
.750	48 x 144		

DIAMOND TREAD PLATE

Alloy and temper 6061-T6

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.100	48 x 192	.188	60 x 192
.125	48 x 192	.250	48 x 192
.188	48 x 192	.250	60 x 192

BUILDING SHEET COILED

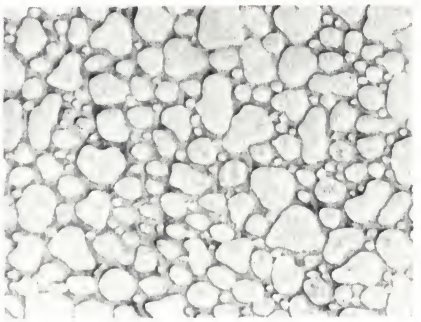
Cut-to-length

THICKNESS INCHES	SIZE INCHES	THICKNESS INCHES	SIZE INCHES
.019	24 x 72	.032	36 x 96
.019	36 x 96	.032	36 x 120
.019	36 x 120	.032	48 x 120
.024	24 x 72	.040	24 x 72
.024	36 x 96	.040	36 x 96
.024	36 x 120	.040	36 x 120
.024	48 x 120	.040	48 x 120
.027	24 x 72	.050	24 x 72
.027	36 x 96	.050	36 x 96
.027	36 x 120	.050	36 x 120
.027	48 x 120	.050	48 x 120
.032	24 x 72		

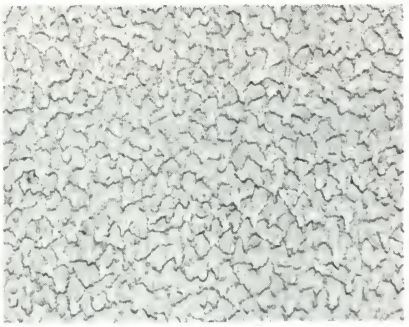
ONE SIDE EMBOSSED SHEET

Listed alloys and tempers are excellent for general architectural application. Other alloys and tempers are available.

	THICKNESS	SIZE	ALLOY	TEMPER
FINE BARK M-101	.025"-.064"	48" x 144"	3003, 5005	H154

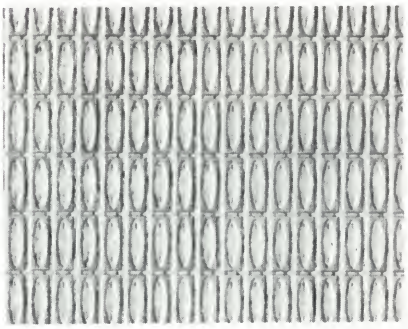


	THICKNESS	SIZE	ALLOY	TEMPER
PEBBLEGRAIN M-102	.025"-.064"	48" x 144"	3003, 5005	H154

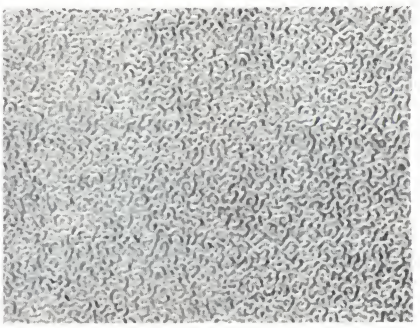


	THICKNESS	SIZE	ALLOY	TEMPER
STUCCO M-103	.025"-.064"	48" x 144"	3003, 5005	H154

	THICKNESS	SIZE	ALLOY	TEMPER
FLUTED M-104	.040"-.125"	48" x 144"	3003, 5005	H154



	THICKNESS	SIZE	ALLOY	TEMPER
SMALL OVAL A-107	.025"-.064"	20" x 144"	3003, 5005	H154

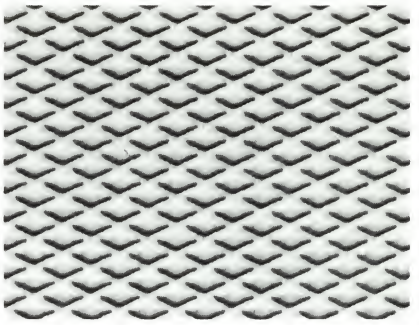


	THICKNESS	SIZE	ALLOY	TEMPER
PINSEAL M-108	.020"-.064"	48" x 144"	3003, 5005	H154

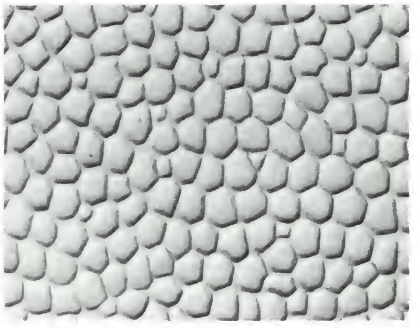
TWO SIDES EMBOSSED SHEET

Listed alloys and tempers are excellent for general architectural application. Other alloys and tempers are available.

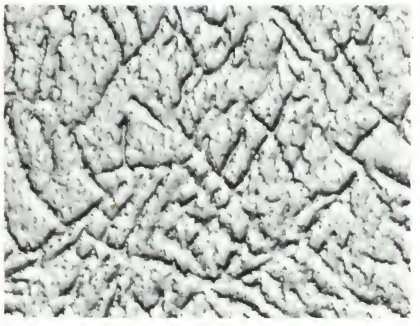
	THICKNESS	SIZE	ALLOY	TEMPER
DIAMOND M-201	.010"-.019"	36" x 144"	3003, 5005	H154
	.020"-.064"	48" x 144"	3003, 5005	H154



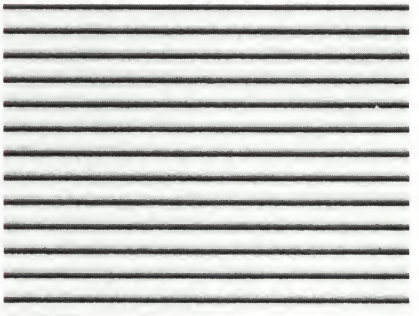
	THICKNESS	SIZE	ALLOY	TEMPER
HAMMERED	.010"-.019"	36" x 144"	3003, 5005	H154
M-202, A-202	.020"-.064"	48" x 144"	3003, 5005	H154

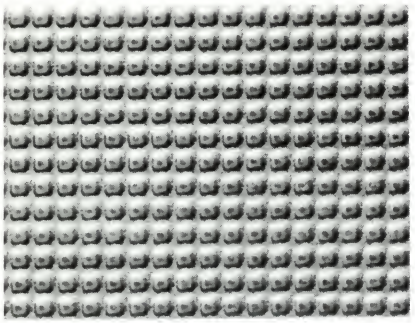


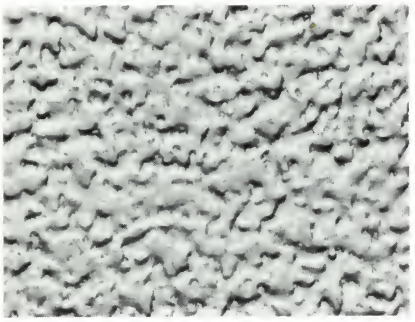
	THICKNESS	SIZE	ALLOY	TEMPER
LEATHERGRAIN	.010"-.019"	36" x 144"	3003, 5005	H154
M-203, A-203	.020"-.064"	48" x 144"	3003, 5005	H154

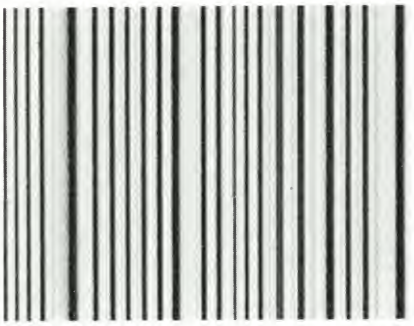


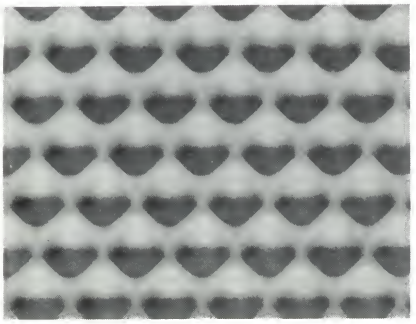
	THICKNESS	SIZE	ALLOY	TEMPER
RIB LENGTHWISE	.010"-.019"	36" x 144"	3003, 5005	H154
M-204	.020"-.064"	48" x 144"	3003, 5005	H154











TWO SIDES EMBOSSED SHEET

Listed alloys and tempers are excellent for general architectu application. Other alloys and tempers are available.

	THICKNESS	SIZE	ALLOY	TEMPER
SQUARE M-205, A-205	.010″-.019″	36″ x 144″	3003, 5005	H154
	020″-.064″	48″ x 144″	3003, 5005	H154

	THICKNESS	SIZE	ALLOY	TEMPER
STUCCO M-206, A-206	.010″-.019″	36″ x 144″	3003, 5005	H154
	.020″-.064″	48″ x 144″	3003, 5005	H154

	THICKNESS	SIZE	ALLOY	TEMPER
WOODGRAIN M-207	.010″-.019″	36″ x 144″	3003, 5005	H154
	.020″-.064″	48″ x 144″	3003, 5005	H154

	THICKNESS	SIZE	ALLOY	TEMPER
POLYGON M-209	.025″-.064″	48″ x 144″	3003, 5005	H154

ARCHITECTURAL COLORWELD® COIL and SHEET

Now you can put dramatic color and the convenience of pre-finished surfaces into architectural design and construction using Reynolds Colorweld Coil and Sheet. The rich baked enamel surface stays bright and attractive because it is bonded to the aluminum by the exclusive, roller enamelled Colorweld process. Saves time, labor and money because there is no site painting to do. And you have complete control of color and uniformity.

Colorweld can be bent, stamped, punched and laminated without harming the tough, abrasive-resistant enamel coating. These advantages combined with the lightweight, rustfree strength qualities of architectural aluminum give you a new world of possibilities in architectural design. Exterior and interior panels, copings, gravel stops, trim—any applications where sheet aluminum can be used—are within the capability of Colorweld Coil and Sheet. Your Reynolds distributor can supply full information and color samples.

COLORWELD STANDARD AND SPECIAL COLORS

Select from twenty standard colors always available, or Reynolds can match any color or gloss in either exterior or interior finishes. Samples of standard colors on aluminum stock are available on request.

Hunter Red	Imperial Maroon
Twilight Orange	Fern Green
Ivy Green	Terra Cotta
Cadet Gray	Vivid Cream
Pennant Blue	Autumn Brown
Jonquil Yellow	Pastel Pink
Raven Black	Pastel Blue
Polar White	Pastel Gray
Heron Blue	Pastel Beige
Mocha Tan	Pastel Green

SPECIFICATIONS AND AVAILABILITY SCHEDULES

ALLOY: 1100, 3003, 5005, 5050, or 5052.

SIZE:

Coil Stock—Widths from 1″ to 60″ in all thicknesses.
Flat Sheet:

	LIMITS (INCHES)	
THICKNESS INCHES	WIDTHS MIN. & MAX.	LENGTH MIN. & MAX.
.016-.018	1-36	12-144
.019-.031	1-36 36-48	12-144 36-180
.032-.039	1-36 36-60	12-144 36-220
.040-.050	1-36 36-60	12-144 36-220
.050-.064	36-60	36-220

TEMPER:

	MAXIMUM WIDTH OF FINISHED STRIP* THICKNESS OF METAL			
TEMPER	1″-18″	18″-24″	24″-36″	36″-60″
0	.016″-.064″	.016″-.064″	.016″-.051″	Subject to Inquiry
H12	.014″-.064″	.016″-.064″	.016″-.051″	.019″-.064″
H14	.012″-.064″	.016″-.064″	.016″-.051″	.019″-.064″.
H16	.010″-.064″	.016″-.064″	.016″-.051″	.019″-.064″
H18	.008″-.064″	.016″-.064″	.016″-.051″	.019″-.050″

*Painted in multiples—painted edges subject to inquiry.

EMBOSSING:

Embossing patterns listed in table are standard for Colorweld coil and flat sheet and are pictured on pages 20, 21 and 22. Other embossing patterns are subject to inquiry.

	THICKNESSES AVAILABLE	
PATTERNS	1″-36″ WIDE	36″-60″ WIDE
Stucco Embossed (M103, M206)	.016″-.032″	.019″-.064″
Woodgrain Embossed (M207)	.016″-.032″	.019″-.064″
Hammered Embossed (M202)	.016″-.032″	.019″-.064″
Leathergrain Embossed (M203)	Not Available	.019″-.064″

FINISH:

Durecon—Alkyd nitrogen enamel having moderate formability.
Econoflex—Vinyl alkyd enamel having good formability.
Duraflex—Vinyl enamel having excellent formability.

WIDTHS AVAILABLE (All Items Enamelled Both Sides)

	SMOOTH	STUCCO EMBOSSED (M103, M206)	WOODGRAIN EMBOSSED (M207)	HAMMERED EMBOSSED (M202)	LEATHER-GRAIN EMBOSSED (M203)
Durecon	1″-60″	Not Available	Not Available	Not Available	Not Available
Econoflex	1″-60″	1″-60″	1″-60″	1″-60″	36″-60″
Duraflex	1″-60″	1″-60″	1″-60″	1″-60″	36″-60″

RELY ON THESE REYNOLDS ALUMINUM DISTRIBUTORS

All the items covered in this catalog are warehoused by the authorized Reynolds Aluminum Distributor located conveniently near you. Thus, you get quick action on your orders—have aluminum *where* you want it, *when* you want it. Inventories are maintained to provide you with on-the-spot, "one source" service. Consider your Distributor's warehouse an extension of your own stocking facility. He stocks aluminum until you *need* it!

Reynolds Aluminum distributors are also equipped to provide such service as slitting, shearing and sawing. You buy just the aluminum you need for your requirements, ready for fabrication.

Distributor personnel are trained by Reynolds to help you use aluminum most advantageously. Be sure to look for your Reynolds Aluminum Distributor under "Aluminum" in the Yellow Pages of your local telephone directory.
See A.I.A. File 12-C-3 for Copings and Gravel Stops Sections.

ALABAMA
Birmingham, Reynolds Aluminum Supply Co.

ARIZONA
Phoenix, Reynolds Aluminum Supply Co.

CALIFORNIA
Emeryville, Metals Supply
Fresno, Los Angeles, Sacramento, San Diego, San Francisco, Reynolds Aluminum Supply Co.
Los Angeles, Bralco Metals, Inc.
Los Angeles, Rebco, Inc.
Los Angeles, San Francisco, Joseph T. Ryerson & Son, Inc.
Los Angeles, The Republic Supply Co.
Sacramento, American Building Materials Co., Inc.
Stockton, Pittsburgh-Des Moines Steel Co.

COLORADO
Denver, Silver Steel Co.

CONNECTICUT
Hartford, American Steel & Aluminum Corp.
Wallingford, Joseph T. Ryerson & Son, Inc.
Waterbury, Sheet Metal Mfg. Co., Inc.

DISTRICT OF COLUMBIA
Washington Roofing Products Co., Inc.
Washington By Products Co.

FLORIDA
Jacksonville, Miami, Reynolds Aluminum Supply Co.
Miami, Jenks Metals, Inc.

GEORGIA
Atlanta, Savannah, Reynolds Aluminum Supply Co.
Atlanta, Southern Aluminum Finishing Co.

HAWAII
Honolulu, American Factors, Ltd.

ILLINOIS
Chicago, Jones & Laughlin Steel Whse. Div.
Chicago, Kasle Steel Corp.
Chicago, Joseph T. Ryerson & Son, Inc.
Forest Park, Aluminum Distributors, Inc.
Franklin Park, Benjamin Wolff & Co.
Skokie, J. G. Braun Co.

INDIANA
Indianapolis, Jones & Laughlin Whse. Div., W. J. Holliday Co.
Indianapolis, Joseph T. Ryerson & Son, Inc.
South Bend, Kasle Steel Corp.
South Bend, United States Aluminum Co.

IOWA
Des Moines, Pittsburgh-Des Moines Steel Co.
Des Moines, Robinson Bros. & Co., Div. of Ft. Dodge Iron & Metal

KANSAS
Wichita, Industrial Metals, Inc.

KENTUCKY
Louisville, Jones & Laughlin Steel Whse. Div.
Louisville, Reynolds Aluminum Supply Co.

LOUISIANA
New Orleans, Glazer Steel Corp.
Shreveport, Pelican Supply Co., Inc.

MARYLAND
Baltimore, Clendenin Brothers, Inc.

MASSACHUSETTS
Boston, Joseph T. Ryerson & Son, Inc.
Boston, Waghorne-Brown Co.
Cambridge, American Steel & Aluminum Corp.
Fall River, The Congdon & Carpenter Co., Inc.

MICHIGAN
Detroit, Grand Rapids, Kasle Steel Corp.
Detroit, Jones & Laughlin Steel Whse. Div.
Grandville, Haven-Busch & Sons
Mt. Morris, Mt. Morris Bldg. Products, Inc.
River Rouge, Whitehead & Kales Co.

MINNESOTA
Minneapolis, St. Paul, Vincent Brass & Aluminum Co.
St. Paul, MacArthur Co.

MISSOURI
Kansas City, St. Louis, Industrial Metals, Inc.
St. Louis, Joseph T. Ryerson & Son, Inc.

NEBRASKA
Omaha, United Brass & Aluminum Co., Inc.

NEW JERSEY
Carlstadt, Julius Blum & Co., Inc.
Hillside, Edgecomb Steel & Aluminum Corp.
Jersey City, Joseph T. Ryerson & Son, Inc.
Passaic, Passaic Metal Products, Inc.
Union, Mapes & Sprowl Steel Co.
West New York, Rebco-Metro, Inc.

NEW MEXICO
Albuquerque, New Mexico Tank & Culvert Co.
Albuquerque, Silver Steel Co.

NEW YORK
Brooklyn, White Plains, Sheet Metal Mfg. Co., Inc.
Buffalo, Joseph T. Ryerson & Son, Inc.
New York, J. G. Braun Co.
Richmond Hill, Long Island Tinsmith Supply Corp.

NORTH CAROLINA
Charlotte, Joseph T. Ryerson & Son, Inc.
Greensboro, J. H. Wilkinson
Raleigh, Reynolds Aluminum Supply Co.

OHIO
Cincinnati, Cleveland, Joseph T. Ryerson & Son, Inc.
Cincinnati, Jones & Laughlin Steel Whse. Div.
Cincinnati, Mutual Mfg. & Supply Co.
Cleveland, Hamilton Steel Whse., Jones & Laughlin Steel Whse. Div.
Cleveland, Kasle Steel Corp.
Columbus, Vorys Brothers, Inc.
Youngstown, Hynes Steel Products Co.

OKLAHOMA
Tulsa, Industrial Metals, Inc.

PENNSYLVANIA
Philadelphia, Athos Steel Service
Philadelphia, Merchant & Evans Co.
Philadelphia, Pittsburgh, Joseph T. Ryerson & Son, Inc.
Pittsburgh, Pennsylvania Industrial Supplies Co., Inc.

RHODE ISLAND
Providence, The Congdon & Carpenter Co., Inc.

TENNESSEE
Memphis, Nashville, Reynolds Aluminum Supply Co.

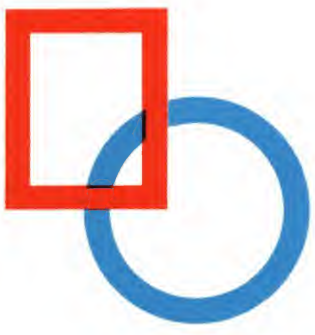
TEXAS
Dallas, Houston, Joseph T. Ryerson & Son, Inc.
Houston, Allied Metals, Inc.
Midland, Building Service & Supply Co.

UTAH
Salt Lake City, Silver Steel Co.

VIRGINIA
Norfolk, Globe Iron Construction Co.
Richmond, Reynolds Aluminum Supply Co.

WASHINGTON
Seattle, Spokane, Reynolds Aluminum Supply Co.

WISCONSIN
Madison, Theo. Kupper Foundry & Iron Works, Inc.
Milwaukee, Joseph T. Ryerson & Son, Inc.
Milwaukee, Wisconsin Bridge & Iron Co.



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See A.I.A. File 12-C-3 for Copings and Gravel Stops Sections.

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Birmingham, Reyno
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Phoenix, Reynolds A
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Fresno, Los Angeles,
San Francisco, Re
Supply Co.
Los Angeles, Bralco
Los Angeles, Rebco,
Los Angeles, San Fra
& Son, Inc.
Los Angeles, The Re
Sacramento, America
Co., Inc.
Stockton, Pittsburgh
COLORADO
Denver, Silver Steel
CONNECTICUT
Hartford, American S
Wallingford, Joseph
Waterbury, Sheet M
DISTRICT OF C
Washington Roofing
Washington By Prod
FLORIDA
Jacksonville, Miami,
Supply Co.
Miami, Jenks Metals
GEORGIA
Atlanta, Savannah, H
Supply Co.
Atlanta, Southern Al
HAWAII
Honolulu, American
ILLINOIS
Chicago, Jones & Lau
Chicago, Kasle Steel
Chicago, Joseph T. R
Forest Park, Aluminu
Franklin Park, Benja
Skokie, J. G. Braun
INDIANA
Indianapolis, Jones &
W. J. Holliday Co.
Indianapolis, Joseph
South Bend, Kasle St
South Bend, United S
IOWA
Des Moines, Pittsbur
Des Moines, Robinso
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